



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,712	07/28/2003	Gregory A. Ehlers	4834-00009	6702

26753 7590 08/24/2006

ANDRUS, SCEALES, STARKE & SAWALL, LLP  
100 EAST WISCONSIN AVENUE, SUITE 1100  
MILWAUKEE, WI 53202

EXAMINER

BORISSOV, IGOR N

ART UNIT PAPER NUMBER

3639

DATE MAILED: 08/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/628,712

Applicant(s)

EHLERS ET AL.

Examiner

Igor Borissov

Art Unit

3639

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

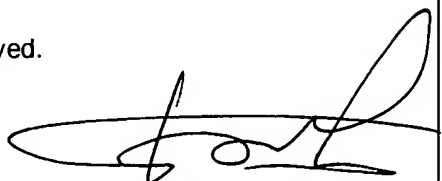
- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.



IGOR N. BORISSOV  
PRIMARY EXAMINER

## DETAILED ACTION

### *Specification*

The abstract of the disclosure is objected to because the following phrase is confusing: "The node for controls the supply of energy to the device as a function of the at least one characteristic."

The disclosure is objected to because of the following informalities: page 5, lines 2-3 of the specification contains the following phrase: "The node for controls the supply of energy to the device as a function of the at least one characteristic", which is confusing.

Appropriate correction is required. See MPEP § 608.01(b).

**Claims 3-5, 12 and 16-22** are objected to because of the following informalities:

Claim 3 includes the following phrase: "wherein at one of the control nodes", which appears to be misspelled.

Claims 4, 12 and 19 include the following phrase: "wherein one of the control nodes dynamically moves between the first and second groups". The term *dynamically moves* is not an accepted term in the technology, and could be understood in a way not supported by the specification.

Claim 16, page 105, line 9 includes the following phrase: "a plurality of control nodes, each control one node coupled", which appears to be misspelled.

Claim 16, page 105, line 13 includes the following phrase: "the control nodes being structured into a group...". The examiner believes that a word "wherein" is missing in front of said phrase.

The remaining Claim is objected to as being dependent on the rejected Claims. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 3639

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claims 3-5, 11 and 18** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 3, 11 and 18 include a word "may", which is confusing. The word "may" implies potential capability, not an actual method step.

Remaining Claims are rejected as being dependent on the rejected Claims.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1- 6, 8-13, 15-20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ehlers et al. (US 5,572,438) in view of Humphries et al. (US 5,621,662).**

**Claims 1, 9 and 16.** Ehlers et al. (Ehlers) teaches a method and apparatus for energy management and building automation system, said system including a user interface, a utility a distribution network, a gateway node and a plurality of control nodes, said method comprising:

providing a gateway node for providing communication between the energy provider and the customer site (C. 4, L. 7-9, 15-17; Abstract);

providing a plurality of control nodes, each of a plurality of devices having a corresponding control node (C. 10, L. 32-33);

defining a program having a subset of the plurality of devices for which usage of the commodity may be managed by activating the program (C. 9, L. 9-10, 51-53);

allowing the customer to subscribe to the program ("generating reports for the customer" indicates business relationship between the utility provider and utility consumer) (C. 10, L. 25-31);

delivering the commodity to the subset of devices (C. 3, L. 57-65).

While Ehlers teaches providing a plurality of control nodes (C. 10, L. 32-33), Ehlers does not specifically teach *structuring the plurality of control nodes into a group corresponding to the subset of the plurality of devices*.

Humphries et al. (Humphries) teaches a method and apparatus for home automation system, said home automation system comprising *a number of sub-systems, such as a security sub-system, a lighting control sub-system, and an environmental control sub-system*; a controller for providing centralized control of the sub-systems and an interface for connecting the controller to a network, and *a plurality of nodes which are located in the various sub-systems* (C. 4, L. 42-51).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Ehlers to include *structuring the plurality of control nodes into a group corresponding to the subset of the plurality of devices*, as disclosed in Humphries, because it would advantageously allow to control a particular subset of the plurality of devices by transmitting a single control message to a corresponding set of control nodes (Humphries; C. 11, L. 27-32).

**Claims 2, 10 and 17.**

Ehlers teaches defining programs for controlling said plurality of devices (C. 9, L. 9). Humphries teaches structuring the plurality of control nodes into a second group corresponding to the second subset of the plurality of devices (C. 4, L. 42-51). The motivation to combine references would be to allow to control a particular subset of the plurality of devices by transmitting a single control message to a corresponding set of control nodes.

**Claims 3.** Humphries teaches a host controller which controls both the first and second groups (C. 11, L. 27-32).

**Claims 4, 12 and 19.** Humphries teaches a host controller which controls both the first and second groups (C. 11, L. 27-32), thereby suggesting "moving" feature.

**Claims 5, 11 and 18.** Humphries teaches a host controller which controls both the first and second groups (C. 11, L. 27-32).

**Claims 6, 13 and 20.** Ehlers teaches providing an intermediate control node (second microcomputer) coupled to the gateway node and to the group of control nodes (C. 4, L. 50-55).

**Claims 8, 15 and 22.** Ehlers teaches that said nodes are arranged in a star network (C. 10, L. 35-36).

**Claims 7, 14 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ehlers et al. in view of Humphries et al. and further in view of Gelvin et al. (US 6,859,831).**

**Claims 7, 14 and 21.** Ehlers in view of Humphries teach all the limitations of Claims 7, 14 and 21, except specifically teaching that said nodes are arranged in a tree network.

Gelvin et al. (Gelvin) teaches a method and apparatus for home automation system including a plurality of nodes, wherein said nodes are organized in a tree network (C. 35, L. 39-41; C. 67, L. 54-58), as well as in a star configuration (Fig. 22; C. 25, L. 29-31).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Ehlers and Humphries to include that said nodes are arranged in a tree network, as disclosed in Gelvin, because it would advantageously allow hierarchical decision making allowing processing at multiple steps as data progress from nodes to the gateway (Gelvin; C. 35, L. 39-48).


### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure (see form PTO-892).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Igor Borissov whose telephone number is 571-272-6801. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hayes can be reached on 571-272-6708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

IB  
8/13/2006



IGOR N. BORISSOV  
PRIMARY EXAMINER